

Table with fold-away legs

Description

5 TECHNICAL FIELD

The invention relates to the field of furniture, in particular tables with fold-away legs.

PRIOR ART

10 Various technical solutions for tables which have fold-away legs are known. Such tables are important, in particular, in the commercial sector, where rooms have to be furnished in a flexible manner. It is necessary here for the furniture, including the tables, on the
15 one hand to be erected easily and quickly but, on the other hand, also to be easily dismantled again and stored in the smallest possible amount of space.

Of course, it is also necessary here for the furniture
20 to be stable, both in the erected state and when stored, and to have an aesthetically pleasing appearance, but nevertheless to have a low weight and be as cost-effective as possible to produce. Furthermore, it should be possible for the furniture to
25 be erected and stored as quickly and easily as possible even by unskilled individuals.

The prior-art tables only fulfil these stringent requirements to some extent, and it is thus still very
30 problematic to improve tables such that they satisfy the requirements to the greatest possible extent.

DESCRIPTION OF THE INVENTION

The object of the invention is thus to improve a table
35 with fold-away legs such that, on the one hand, the legs are easy to fold away and to erect, and the table has an aesthetically pleasing appearance in the erected state and only takes up a small amount of space in the stored state but, on the other hand, the production

outlay and thus the production costs are as low as possible.

This object is achieved by the features of Claim 1 and
5 of the subclaims.

The invention is based on the idea of producing the articulated connection between the tubular leg and the articulation socket by a T-bolt which has its
10 crosspiece mounted in a pivotable manner in the articulation socket, under spring force, and which has its lower shank screwed to a threaded ring, on the relatively large-pitched external thread of which the tubular leg can be moved by rotation in the
15 longitudinal direction by means of a leg insert fastened therein.

It is thus possible for the tubular leg, by being rotated in the anti-clockwise direction, to be released
20 from its engagement in the articulation socket and folded away and in the erected state, by being rotated in the clockwise direction, to be fixed on the articulation socket.

25 It is particularly advantageous here, on the one hand between the threaded ring and the leg insert, to provide a spring which, in the released state, forces the tubular leg away from the articulation socket and, on the other hand, at the point where the end of the
30 folded-away leg ends up located beneath the table top, to provide an arresting saddle with a recess into which the nose of an arresting body fitted at the end of the tubular leg is forced by the spring force. Once folded away, a leg thus latches into the arresting saddle and
35 remains stored away in a stable manner beneath the table top.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is explained in more detail hereinbelow with reference to an exemplary embodiment illustrated in the drawings, in which:

- 5
Figure 1 shows a table from beneath, with the legs folded away and arrested at their ends,
Figure 2 shows the illustration from Figure 1 in side view,
10 Figure 3 shows a section through the articulated connection according to the invention between an articulation socket and tubular leg, where the tubular leg has been released from the articulation socket and can thus be folded
15 away,
Figure 4 shows the illustration from Figure 3 with the tubular leg fixed on the articulation socket,
Figure 5 shows, at the top, an illustration of the articulation socket and tubular leg in the
20 folded-away state and, at the bottom, an enlarged illustration of the region which, at the top, is designated "A",
Figure 6 shows a perspective illustration of the T-bolt, and
25 Figure 7 shows, at the top, an illustration of the arresting saddle on the underside of the table, with the arresting body of the leg insert latched in, and, at the bottom, an enlarged illustration of the region which, at
30 the top, is designated "A".

METHODS OF IMPLEMENTING THE INVENTION

- Figure 1 illustrates a table top 1 in a view from beneath. Provided at its corners are table-joint
35 components 2 in which, on the one hand, the crossmembers 18 are fastened and on which, on the other hand, the articulation sockets 3 are fastened. The crossmembers 18 are adhesively bonded to the table-joint components 2. The table top 1 is fastened

on the crossmembers 18 and the table-joint components 2 by means of the screws 19. The tubular legs 4 have been folded away and latched in the arresting saddles 7 (not shown in this figure).

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Figure 2 illustrates the table top 1 with the table-joint components 2 fastened on its underside, these components retaining the crossmembers 18, on the one hand, and the articulation sockets 3, on the other hand. The tubular legs 4 have been folded away in the articulation sockets 3, the connection between the articulation socket 3 and tubular leg 4 being produced via the T-bolt 8.

15 Figure 3 illustrates the articulated connection between the tubular leg 4 and the articulation socket 3 via the T-bolt 8, the tubular leg 4 having been detached from the articulation socket 3.

20 The articulation socket 3 is fastened on the table-joint component 2. The T-bolt 8 has its crosspiece 23 mounted in a pivotable manner in the articulation socket 3. This allows a pivoting movement by way of the recess 11 in the articulation socket 3.

25 The mounting of the crosspiece 23 is brought about by the pressure of the braking insert 9, which is subjected to the force of the socket spring 10. Inserted at the articulation end of the articulation socket 3 is a ring which consists of polyamide (PA) and

30 acts as a stacking guard 12 when the tables with folded-away legs are stored one above the other.

A leg insert 14 is fastened, for example adhesively bonded, in the tubular leg 4. This insert has an internal thread into which the threaded ring 13 is

35 screwed by way of its external thread. The T-bolt is screwed into the internal thread of said threaded ring.

In the illustration, the tubular leg 4 has been released from the articulation socket 3, that is to say the internal thread of the leg insert 14 does not, in this state, engage in the external thread of the threaded ring 13, and the leg insert 14, and with it the tubular leg 4, can move freely in the longitudinal direction. The retaining ring 17 is provided, however, in order that the tubular leg 4 cannot drop off from the T-bolt 8.

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On the one hand, the leg spring 15, which acts on the threaded ring 13 via the stop ring 16, causes the tubular leg to be forced away from the articulation socket 3, with the result that the tubular leg 4 can easily be folded away via the recess 11. On the other hand, however, the leg spring 15 also causes the tubular leg 4 to be forced, by way of its bottom end, into the arresting saddle 7.

20 In order then to fix the tubular leg 4 on the articulation socket 3, the tubular leg 4 is pushed counter to the force of the spring 15 and rotated in the clockwise direction, with the result that the internal thread of the leg insert 14 engages in the external thread of the threaded ring 13, and the tubular leg 4 is moved in the direction of the articulation socket 3.

30 This situation is illustrated in Figure 4. In this case, the leg insert 14, and with it the tubular leg 4, is brought into abutment with the articulation socket 3 by virtue of its internal thread being screwed upwards on the external thread of the threaded ring 13. The stacking guard 12 is accommodated in a recess of the leg insert 14.

35 Figure 5 once again illustrates, at the top, the parts which have already been indicated in Figures 3 and 4. Additionally illustrated is a bore 20 which

accommodates a screw by means of which the table-joint component 2 is fastened on the table top 1. An enlargement of the region which, at the top of the figure, is designated "A" is illustrated at the bottom.

5 It should be noted here that the external thread 21 of the threaded ring 13 has a larger pitch than the internal thread of the threaded ring 13, or the corresponding thread 25 on the T-bolt. This achieves the situation where, although the threaded ring 13 is
10 seated in a fixed manner on the T-bolt 8, only a small number of revolutions are necessary when the leg insert 14 is screwed upwards on the external thread 21 of the threaded ring 13.

15 The T-bolt 8 illustrated in Figure 6 has, at the top, the crosspiece 23, which is seated on the upper shank 24, and also has the already described thread 25 and the lower shank 26. The groove 27 serves for accommodating the retaining ring 17, the function of
20 which has been described in conjunction with Figure 3.

Figure 7 illustrates the table top 1 with the arresting saddle 7 screwed thereto. The screw, which is not shown in the figure, is screwed into the bore 28. An
25 arresting body 5 is fastened, for example by adhesive bonding, in the tubular leg 4 and has a nose which engages in a corresponding recess on the arresting saddle 7. The force of the leg spring 15, which has been described in conjunction with Figure 3, forces the
30 nose of the arresting body 5 into the recess of the arresting saddle 7, with the result that the nose latches in automatically when the tubular leg 4 is folded away.

List of Designations

- 1 Table top
- 2 Table-joint component
- 3 Articulation socket
- 4 Tubular leg
- 5 Arresting body
- 6 Sliding screw
- 7 Arresting saddle
- 8 T-bolt
- 9 Braking insert
- 10 Socket spring
- 11 Recess
- 12 Stacking guard
- 13 Threaded ring
- 14 Leg insert
- 15 Leg spring
- 16 Stop ring
- 17 Retaining ring
- 18 Crossmember
- 19 Screws
- 20 Bore
- 21 External thread of the threaded ring 13
- 22 Internal thread of the threaded ring 13
- 23 Crosspiece
- 24 Upper shank
- 25 Thread on the T-bolt 8
- 26 Lower shank
- 27 Groove
- 28 Bore